IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with strikethrough. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claims 2, 8, and 14 without prejudice or disclaimer.

Please AMEND claims 1, 7, and 13 and ADD new claim 15 in accordance with the following:

1.   (CURRENTLY AMENDED) An image data processing apparatus comprising:

a dividing unit that divides image data into a plurality of blocks;

an extracting unit that extracts a feature index of a first color component and a feature index of a second color component in each of the blocks;

a registration unit that registers information about a correspondence between the feature index of the second color component and a change in the feature index for the first color component; and

a code embedding unit that embeds a predetermined code into the image data, by changing the feature index of the first color component based on the feature index of the second color component, using the information registered, and embeds one code corresponding to a pair of the blocks, based on a magnitude relationship between feature indices of color components related to the pair of blocks.

2.   (CANCELLED)

3.   (ORIGINAL) The image data processing apparatus according to claim 1, wherein the registration unit registers information about a correspondence between the feature index of the second color component, a difference between the feature indices of the second color component related to a pair of blocks, and the change in the feature index for the first color component.

4.   (ORIGINAL) The image data processing apparatus according to claim 1, wherein the first color component is a yellow component.

5.   (ORIGINAL) The image data processing apparatus according to claim 4, wherein

the second color component is a magenta component.

6. (ORIGINAL) The image data processing apparatus according to claim 1, further comprising a code extracting unit that extracts the code embedded into the image data.

7. (CURRENTLY AMENDED) An image data processing method comprising:
    dividing image data into a plurality of blocks;
    extracting a feature index of a first color component and a feature index of a second color component in each of the blocks;
    registering information about a correspondence between the feature index of the second color component and a change in the feature index for the first color component; and
    embedding a predetermined code into the image data, by changing the feature index of the first color component based on the feature index of the second color component, using the information registered and embedding one code corresponding to a pair of the blocks based on a magnitude relationship between feature indices of the color components related to the pair of blocks.

8. (CANCELLED

9. (ORIGINAL) The image data processing method according to claim 7, wherein the registering includes registering information about a correspondence between the feature index of the second color component, a difference between the feature indices of the second color component related to a pair of blocks, and the change in the feature index for the first color component.

10. (ORIGINAL) The image data processing method according to claim 7, wherein the first color component is a yellow component.

11. (ORIGINAL) The image data processing method according to claim 10, wherein the second color component is a magenta component.

12. (ORIGINAL) The image data processing method according to claim 7, further comprising extracting the code embedded into the image data.

13.   (CURRENTLY AMENDED) A computer program, making A computer-readable recording medium that stores a program that, when executed, makes a computer performexecute:

dividing image data into a plurality of blocks;

extracting a feature index of a first color component and a feature index of a second color component in each of the blocks;

registering information about a correspondence between the feature index of a second color component and a change in the feature index for the first color component; and

embedding a predetermined code into the image data, by changing the feature index of the first color component based on the feature index of the second color component, using the information registered and embedding one code corresponding to a pair of the blocks, based on a magnitude relationship between feature indices of the color components related to the pair of blocks.

14.   (CANCELLED)

15.   (CURRENTLY AMENDED) The computer program computer-readable recording medium according to claim 13, wherein the registering includes including registering information about a correspondence between the feature index of the second color component, a difference between the feature indices of the second color component related to a pair of blocks, and the change in the feature index for the first color component.

16.   (CURRENTLY AMENDED) The computer program computer-readable recording medium according to claim 13, wherein the first color component is a yellow component.

17.   (CURRENTLY AMENDED) The computer program computer-readable recording medium according to claim 16, wherein the second color component is a magenta component.

18.   (CURRENTLY AMENDED) The computer program computer-readable recording medium according to claim 13, further making the computer execute perform extracting the code embedded into the image data.

19.   (NEW) An image data processing apparatus comprising:

a code embedding unit that embeds a predetermined code into image data by changing

4

a feature index of a first color component of a block, based on a feature index of a second color component of the block, and embeds a code corresponding to a pair of blocks, based on a magnitude relationship between feature indices of color components related to the pair of blocks.